Dell PowerVault NX1950 Networked Storage Solution

The nexus of networked storage: where simplicity, scalability and versatility converge.

The Dell™ PowerVault™ NX1950 is a unified network storage solution that simultaneously stores both file and application data while supporting a wide range of operating environments and communication protocols, including the new iSCSI standard. The PowerVault NX1950 is deployed as an integrated solution packaged with a Dell PowerVault modular disk subsystem. The PowerVault NX1950 can be configured individually or in a multi-node cluster for environments that require high availability.

Dell PowerVault NX1950 Integrated Solution

Simplicity across the board.

The PowerVault NX1950 unified network storage solution offers management functions through a single console. The convenient management interface enables administrators to manage storage from any system on the network.

The management console contains a series of automated setup tools, including an installation wizard which helps streamline the system setup and a volume/share wizard that logically links tasks in a series of steps to help simplify storage provisioning. In addition, for environments that demand high availability and system fail-over capabilities, the unified storage solution includes automated features that take the guesswork out of setting up the system in a multi-node cluster.

Dell integrates components of the storage solution and includes many pre-loaded capabilities to deliver an outstanding out-of-box experience. The pre-installed software stack, pre-configured network protocols, readily available management tools, and other essential services help reduce overall deployment time.

Superb interoperability.

When it comes to interoperability, the PowerVault NX1950 is specifically designed to impress both UNIX® and Windows® systems administrators alike.

Dell designed the PowerVault NX1950 to fit right in to virtually any network environment and operate seamlessly. Special attention was paid to NFS (Linux,® UNIX, Macintosh®) environments, where the solution is optimized to perform and integrate with key UNIX capabilities, including identity management, file permission mapping, and symbolic links. Administrators familiar with Microsoft® SMB/CIFS environments will welcome the integration with core capabilities inherent in Windows, including Active Directory® and NTFS permissions. The system is open for the addition of supported Windows-based third-party anti-virus and backup applications, which can be installed directly onto the system.

Microsoft® Windows Unified Data Storage Server 2003

The PowerVault NX1950's exclusive operating system – Windows Unified Data Storage Server 2003, which was co-developed by Dell and Microsoft – provides true integration with Microsoft's Active Directory® technology, simplifying the task of provisioning storage and assigning access controls.

Advanced storage-management capabilities.

With Microsoft® Windows Unified Data Storage Server 2003 you'll get many software capabilities at no additional charge. These capabilities include point-in-time snapshots and remote replication for enhanced data availability or load balancing, as well as storage resource-management features that help optimize storage capacity, screen out files that are inappropriate, and set quotas that restrict users from consuming too much space. In addition, multi-node clustering is supported for environments that require a high degree of data availability.

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DELL IT INFRASTRUCTURE SERVICES

Dell brings pure execution to IT Services. The planning, implementation and maintenance of your IT infrastructure deserves nothing less. Variability in execution can compromise your productivity, IT resources and ultimately your reputation. By leveraging our heritage of process-driven excellence, Dell Services can deliver a smarter way.

We don't claim to do everything. We focus on IT infrastructure services. And we take a customer-led approach, grounded in the philosophy that you know your business better than anyone. That's why Dell does not try to take key business decisions out of your hands, or lock you in to more than you need. Instead, we apply our world-class process management and "no excuses" culture to deliver what organizations need most today – flexibility and repeatable quality. That's pure execution. That's Pure Dell.

Enterprise Support Services
With Dell, you can get maximum performance and availability out of your Dell server and storage systems. Our Enterprise Support Services offer proactive maintenance to help prevent problems as well as rapid response and resolution of problems when they do occur. We have built a robust global infrastructure that offers multiple levels of enterprise support for systems throughout your infrastructure.

Deployment Services
System deployment is a necessary evil that plagues nearly every organization. You must deploy new systems to help improve performance and meet user demand. With Dell's deployment services, we help simplify and speed up the deployment and utilization of new systems to maximize uptime throughout your IT environment.

Asset Recovery and Recycling Services
Proper disposal, reselling and donation of computer equipment is a time-consuming task that typically falls to the bottom of many IT to-do lists. Dell helps simplify the end-of-life processes for IT equipment in a way that can maximize value for your organization.

Training Services
Arm your employees with the knowledge and skills they need to be as productive as possible. Dell offers comprehensive training services which include hardware and software training, as well as PC skills and professional development classes. With Dell training you can help improve system reliability, maximize productivity and reduce end-user requests and downtime.

Assessment, Design and Implementation Services
IT departments are continually challenged to evaluate and implement new technologies. By utilizing our technical expertise and exceptional project management, you can plan, build and manage an IT infrastructure that takes full advantage of industry standards – and realize the benefits that come along with them. Simplified operations. Improved ROI. Increased utilization. Optimized performance. More control. Less chaos.

To help you get the most from your Dell systems, visit www.dell.com/services.

Services vary by region.

PROCESSOR

Processor type	Two dual-core Intel® Xeon® 5100 Sequence Processors

I/O PORTS

Gigabit Ethernet	4 RJ45 Connectors, two ports supporting TCP/IP offload

STORAGE I/O

	PowerVault NX1950
	Two x4 SAS

MEMORY

Architecture	PC2-5300 667MHz fully-buffered DIMMs with ECC protection, with two-way lockstep operation
Standard RAM	4GB
Maximum RAM	8GB

DRIVES

	PowerVault NX1950
SAS disk drives*	Two mirrored 73GB 3.5-inch hot-pluggable SAS disk drives for OS operations
Optical drive	One slimline DVD-ROM/CD-RW combination or DVD-ROM* ***NOTE: DVD devices are data only***
	PowerVault disk subsystem
Disk drives*	Up to forty-five 3.5-inch SAS hot-pluggable disk drives
Drive performance and capacities	15K SAS drives available in 36GB, 73GB, 146GB or 300GB 10K SAS drives available in 73GB, 146GB or 300GB
Minimum capacity (per enclosure)	72GB using two 36GB 15K SAS disk drives
Maximum capacity (per enclosure)	4,500GB using fifteen 300GB 10K or 15K SAS disk drives

STORAGE CONTROLLERS AND RAID LEVELS

	PowerVault disk subsystem
Storage controllers	• Dual storage controllers provides redundant enclosure management with failover capabilities • 512MB of battery-backed cache (72 hours) per controller
RAID levels	• Support for RAID levels 0, 1, 5 and 10 • Up to 30 physical disks per disk group • Up to 256 virtual disks

POWER SUPPLIES (PER SUPPLY)

PowerVault NX1950	2 x 670 watt hot-plug power supply units; 90 - 264V auto sensing
PowerVault disk subsytem	2 x 550 watt hot-plug power supply units; 90 - 264V auto sensing

PHYSICAL

	PowerVault NX1950	**PowerVault disk subsystem**
Height	4.29 cm (1.69 in)	13.11 cm (5.16 in)
Width	48.26 cm (19 in)	44.63 cm (17.57 in)
Depth	76.2 cm (30 in)	48.01 cm (18.9 in)
Weight (maximum configuration)	17.69 kg (39 lb)	35.37 kg (78 lb)

ENVIRONMENTAL

For additional information about environmental measurements for specific system configurations, see www.dell.com/environmental_datasheets.

Temperature	
Operating	10° to 35°C (50° to 95°F)
Storage	-40° to 65°C (-40° to 149°F)
Relative humidity	
Operating	20% to 80% (non-condensing) with a maximum humidity gradation of 10% per hour
Storage	5% to 95% (non-condensing)
Altitude	
Operating	-16 to 3048m (-50 to 10,000 ft)
Storage	-16 to 10,668m (-50 to 35,000 ft)

Drives: The solution will support 15 drives when it initially ships with drive expansion capability expected in the first half of 2007. **DVD-ROM Drives:** DVD-ROM drives may have write-capable hardware that has been disabled via firmware modifications. **Trademarks:** Dell, the Dell logo and PowerVault are trademarks of Dell Inc. Macintosh is a registered trademark of Apple Computer Corporation. Intel and Xeon are registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Linux is a registered trademark of Linus Torvalds. Active Directory, Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States of America and/or other countries. UNIX is a registered trademark in the U.S.A. and other countries licensed exclusively through X/Open Co. Ltd. Other trademarks and trade names may be used in this piece to refer to either the entities claiming the marks and names or their products. Dell disclaims any proprietary interest in trademarks and names other than its own. © 2006 Dell Inc. All rights reserved. Reproduction in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden. For more information, please contact Dell Inc. November 2006 FKM DELLCOM60076

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